

(No Model.)

C. H. WILKINS.
INCANDESCENT ELECTRIC LAMP.

No. 467,270.

Patented Jan. 19, 1892.

Fig. 1.

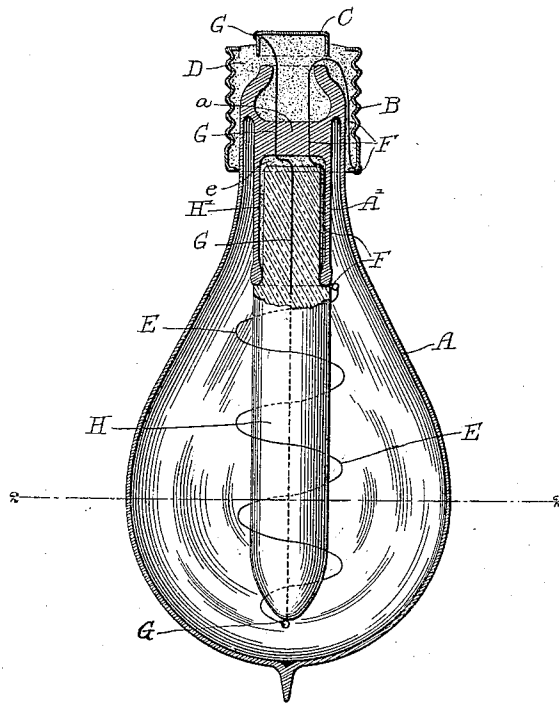
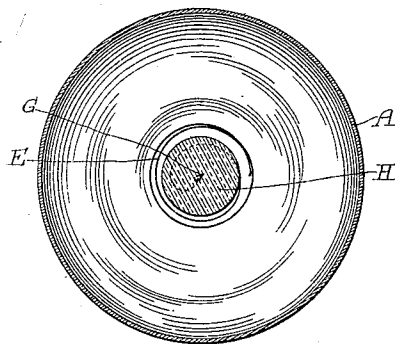


Fig. 2.



Witnesses:-
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UNITED STATES PATENT OFFICE.

CHARLES H. WILKINS, OF CHICAGO, ILLINOIS.

INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 467,270, dated January 19, 1892.

Application filed June 19, 1890. Serial No. 355,943. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. WILKINS, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Incandescent Electric Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in incandescent electric lamps of that class embracing a transparent air-tight inclosure, within which a vacuum is maintained and which contains a small conductor or filament through which an electric current passes and which is maintained in an incandescent condition for the purpose of producing light.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.

In the accompanying drawings illustrating my invention, Figure 1 is a central sectional view of an incandescent lamp embodying the invention. Fig. 2 is a cross-section thereof, taken upon line 2 2 of Fig. 1.

As shown in said drawings, A indicates the hollow glass inclosure or bulb, to one end of which is secured a screw-threaded metal collar B and cap C by means of a mass D of plaster or other non-conducting material, in a manner heretofore common and well-known.

E indicates the conductor-filament, and F and G wires connected with the opposite ends of said filament and attached to the ring B and cap C, which latter are adapted for contact with the terminals of the supply and return conductors located in the socket, in which the lamp is adapted to be secured in a familiar manner.

H is a body or cylinder consisting of lime or white calcareous substance, which is sustained within the bulb A and around or outside of which the said filament E is wrapped or wound.

The wire F leads from the cap or ring B to the end of the filament E nearest the base of the lamp, and the wire G leads from the cap C, through the center of the core E, to the extreme end thereof, where it is attached to the opposite end of the said filament.

In the particular construction herein illus-

trated, a socket H', to receive one end of the core, is formed by means of a glass tube A', connected with the base of the bulb in the same manner as the tubes are commonly arranged for carrying the conducting-wires in similar lamps as heretofore made. Said tube is closed to exclude air from the interior of the bulb by means of a partition or diaphragm a, made integral with the walls of the tube, through which diaphragm the said wires pass. In this construction the diaphragm a forms the bottom of the socket H', which receives the core. As a convenient means for securing the core within the said socket, said core is fitted to loosely enter the socket and is secured therein by plaster-of-paris, as indicated at e.

The core E illustrated is generally cylindrical in form with a tapered and rounded outer end; but the form of the core may be varied in practice, as may be desired or preferred. That part of the wire F within the socket is shown as located between the core and the walls of the tube A', and the wire G, after passing through the diaphragm, passes through the plaster-of-paris to inner end of the core and then through a central passage in the latter.

In the manufacture of a lamp, made as above described and as herein shown, the tube A' will preferably be completed with wires therein and the core inserted and secured in the socket before said tube is inserted within the bulb or globe and attached to the latter.

I am aware that it has been proposed heretofore to employ in an incandescent lamp a central reflector consisting of a hollow tube of glass silvered on its interior surface to constitute a mirror or core of opalescent glass, porcelain, or stoneware. A lamp embodying my invention differs from those of the kind referred to in having a core of white calcareous material which has the important advantage of diffusing the light from the filament to a greater extent and more uniformly than is the case with a silvered-glass reflector and at the same time of being less liable to be affected by the heat of the filament and more easily and cheaply made and secured in the lamp than a core of porcelain or similar substance. By the use of an integral socket for the core, as herein described, a simple and convenient means is provided for securing the

core in place within the globe or bulb of the lamp, and the lamp as a whole may be easily and cheaply made. The spiral disposition of the filament about the reflecting core has the
5 advantage of giving a uniform quantity of light in every direction.

I claim as my invention—

1. The combination, with the bulb and filament of an incandescent lamp, said bulb being
10 provided with an interior glass socket integral with the bulb and opening into the interior of the latter, of a reflecting body or core of lime or other refractory non-transparent white substance, said body or core being
15 sustained in position within the bulb by having one of its ends inserted and secured in said socket, substantially as described.

2. The combination, with the bulb and filament of an incandescent lamp, of a central

body or core of lime or other refractory non-transparent white substance sustained centrally within the bulb and conducting-wires leading to the ends of said filament, one of which passes through the said central body or
20 core to the outer end thereof and the other of which terminates near the inner end or base of the core, said filament being located in the space between said core and the walls of the bulb and attached at its opposite ends to said
25 conducting-wires at the outer end of the core, substantially as described. 30

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

CHARLES H. WILKINS.

Witnesses:

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